

MADERA COUNTY
ENGINEERING TECHNICIAN

DEFINITION

Under general supervision, to perform difficult sub-professional office and field engineering work on a variety of projects; to make routine construction inspections; to review survey maps for accuracy; and to do related work as required.

SUPERVISION EXERCISED

Exercises no supervision.

EXAMPLES OF IMPORTANT AND ESSENTIAL DUTIES

Reviews survey maps for accuracy prior to their being officially recorded; drafts and prepares plans and specifications for County buildings and facilities; prepares plans using a computerized drafting system; interprets, prepares, and checks legal property descriptions; provides leadership for field survey work and operates surveying equipment such as transits and levels; prepares cost estimates for construction work on County facilities; makes field inspections to investigate problems regarding grading and flood control; makes routine inspections on assigned projects; prepares for and represents the Department at meetings, as delegated; makes sewer and water line inspections on new subdivisions; plot County right-of-ways; research grant deeds and easements; performs a wide variety of technical office and field engineering assignments; operates blue print equipment and develops prints.

OTHER JOB RELATED DUTIES

Performs related duties and responsibilities as assigned.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

Principles, practices, and methods of civil engineering as applied to County projects, service areas, and special districts.
Surveying, mapping, and drafting principles and practices.
Practical applications of civil engineering principles to County projects.
Basic design principles.
Legal requirements and methods of property description.
Drafting and field surveying equipment.
Engineering mathematics.

Skill to:

Operate surveying and drafting equipment.
Operate modern office equipment including computer equipment.
Operate a motor vehicle safely.

Ability to:

Perform a variety of difficult office and field engineering work.
Perform basic construction inspection and drainage investigation assignments.
Make accurate engineering drawings and computations.
Provide guidance for field survey work.
Prepare maps, drawings, and layouts from notes and sketches.
Prepare cost estimates for engineering projects.
Prepare clear, concise technical engineering reports.
Effectively represent the Department to the public and other government agencies.
Communicate clearly and concisely, both orally and in writing.
Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

Experience and Training Guidelines:

Any combination equivalent to experience and training that would provide the required knowledge, skills, and abilities would be qualifying. A typical way to obtain the knowledge, skills, and abilities would be:

Experience:

Three years of increasingly responsible office and field engineering support work comparable to that of an Engineering Aide with Madera County.

Training:

Equivalent to the completion of the twelfth grade supplemented by college level course work in engineering, mathematics and related fields.

License or Certificate:

Possession of, or ability to obtain, an appropriate, valid driver's license.

Special Requirements:

Essential duties require the following physical skills and work environment:

Ability to sit, stand, walk, kneel, crouch, stoop, squat, twist, climb, and lift 30 lbs.; exposure to cold, heat, noise, outdoors, vibration, confining work space, chemicals, explosive materials, mechanical hazards, and electrical hazards; ability to travel to different sites and locations.

Effective Date: May, 1995